

WILD TIMES

KIDS MAGAZINE

SUMMER 2019



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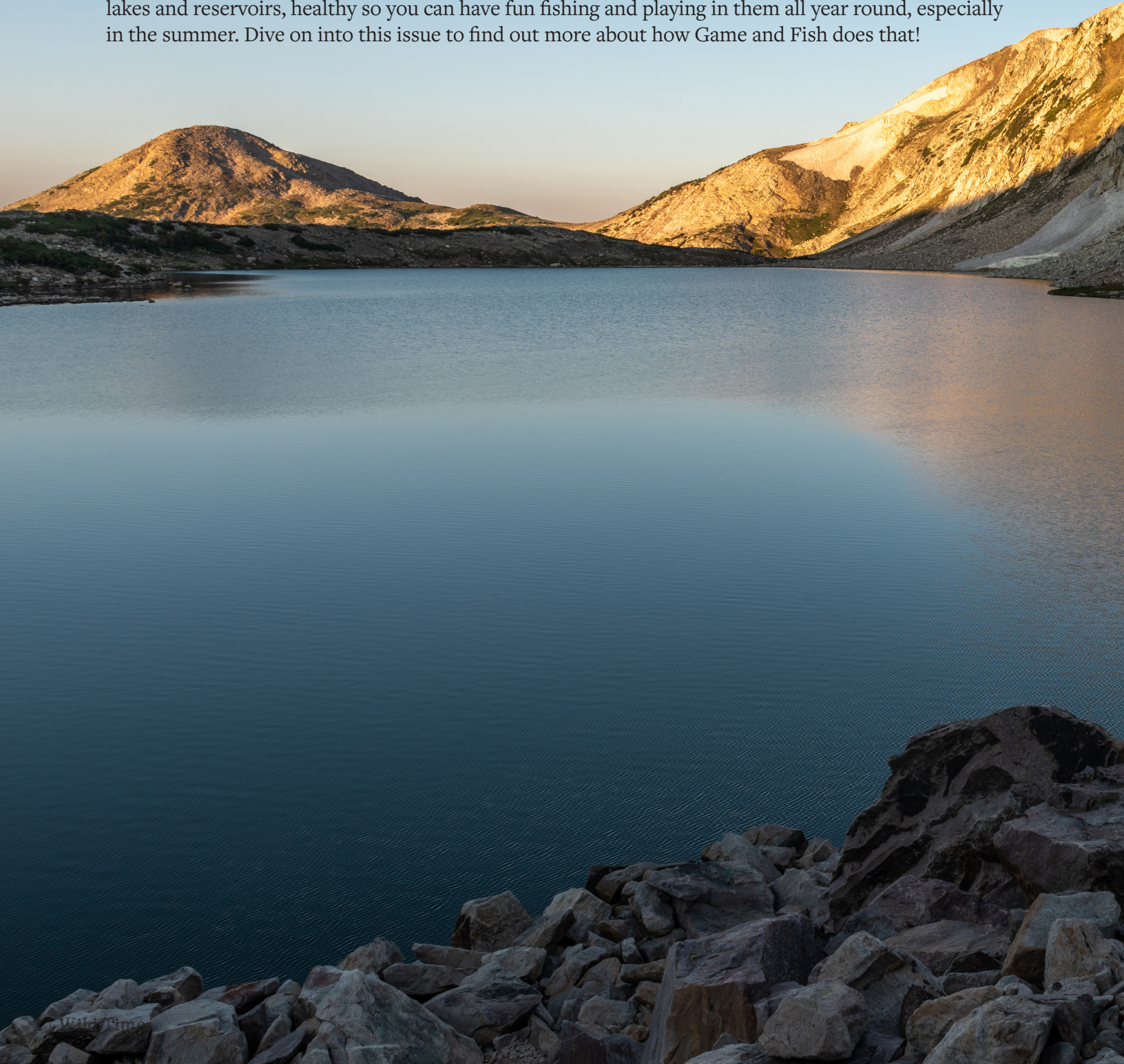
Aquatic Habitat Exploration



ACTIVITIES | LESSONS | INFORMATION | FUN

Aquatic Habitat

Lakes and reservoirs are fun places to fish, swim, and boat. It is important to keep these places called aquatic habitats healthy so we can continue to enjoy them. Aquatic is a word that describes anything related to water. An example of an aquatic animal is a fish. An example of an aquatic sport is canoeing. Habitat is a word we use to describe a place where wildlife can find food, water and shelter. The Wyoming Game and Fish Department works to keep Wyoming's many aquatic habitats, including lakes and reservoirs, healthy so you can have fun fishing and playing in them all year round, especially in the summer. Dive on into this issue to find out more about how Game and Fish does that!



Non-native or Invasive?

Have you heard the words “non-native” or “invasive” before? People often use both words to describe animals that do not belong in a certain place, but these two words have very different meanings. Fisheries Biologist Andrew Nikirk, who works in Sheridan, tells us more about what scientists mean when they use these words:

A non-native species is an animal or plant that was not originally from the place where it lives now. Non-native species are brought to a new place either by accident or on purpose. The good news is that they do not always cause problems in the new place, and can even be helpful. An example of a Wyoming non-native species is a brown trout. Brown trout were not originally found in Wyoming but they have been put into many lakes, streams and ponds on purpose for fishing. These brown trout are able to be caught by people who fish and do not cause harm to the habitat where they are introduced by Game and Fish.

An invasive species is a plant or animal that is not originally from the place where it lives now and is usually brought to the new place by accident. Invasive species are harmful. Invasive species cause problems in the place where they are introduced by eating too many native plants and animals or taking over the habitat so that native plants and animals cannot survive well anymore. Game and Fish works hard to keep harmful invasive species out of Wyoming. The department also tries to get rid of invasive species that have already made their way into the state like brook stickleback and cheatgrass.



Fish biologist Andrew Nikirk holds brown trout during a field project.

What about setting a pet free in the wild?

When pets grow too large or become hard to take care of, some people think letting them loose in the wild to live is the kind thing to do. That’s not the case. Most pets will not survive in the wild and those that do survive can cause problems. Because you might not know if a plant or animal will be invasive and harmful to the wild, you should never move a plant or animal from one place to another or let an unwanted pet loose. Not only is it against the law to let pets go into the wild, pets like goldfish may grow much larger when released into the wild, compete with native fish for habitat and spread diseases.

Don’t Let It Loose is a Game and Fish program that helps protect native species in Wyoming. To learn more about the program and what you should do with unwanted pets, visit our website: <https://wgfd.wyo.gov/Fishing-and-Boating/Aquatic-Invasive-Species-Prevention/Don-t-Let-it-Loose/More-Information>

WILDLIFE PROFILES



Rainbow Trout (*Oncorhynchus mykiss*)

Range: Rainbow trout are native to cold-water streams and rivers that lead to the Pacific Ocean. Wyoming Game and Fish hatcheries raise and stock rainbow trout in many Wyoming waters. Rainbow trout are an example of a non-native species that Game and Fish stocks so that you can fish for them.

Size: In rivers, adult rainbow trout usually weigh between 1 and 5 pounds. In lakes, they can get much larger, up to 20 pounds.

Habitat: Rainbow trout live in streams, lakes and reservoirs. They use aquatic plants, boulders and wood as shelter to hide from predators.

Young: Rainbow trout are usually 3 - 4 years old when they spawn, which is what biologists call it when female fish lay eggs and male fish fertilize eggs. Wild spawning rainbow trout swim up streams in the spring time and lay their eggs in a little gravel nest built by the female trout. A single female may lay 400-3,000 eggs depending on her size. After the eggs are fertilized she will cover them back up with gravel and leave. After 20 to 80 days, the eggs hatch but the baby fish (called alevins) stay under the gravel and develop

for another 2 to 3 weeks. After that time, they swim up and begin feeding in the stream or lake.

Predators: Young rainbow trout often are eaten by larger fish including sculpins, smallmouth bass and larger trout. When in shallow water, kingfishers, herons, eagles, osprey, otters, and raccoons might also eat them. Humans who like to fish also catch and eat rainbow trout.

Food: Rainbow trout are not picky eaters, and they will eat aquatic larvae and insects like caddisflies, mayflies and stoneflies. They also eat ants, beetles, grasshoppers and crickets that fall into the water. Other prey include fish eggs and small fish up to one-third of their length, crayfish and freshwater shrimp.

Did you know? In 2018 the Game and Fish raised one million, nine hundred sixty-six thousand, three hundred and ninety two (1,966,392) rainbow trout to stock into lakes, reservoirs and rivers for people to catch.

WILDLIFE PROFILES



Western Tiger Salamander (*Ambystoma mavortium*)

Range: Western tiger salamanders are native to Wyoming and can be found throughout the state.

Size: Adults have sturdy bodies and are about 5-8 inches long and weigh about 4 to 8 ounces.

Habitat: Western tiger salamanders live in deep burrows, up to two feet below the surface, near ponds, lakes or slow-moving streams and are one of a few salamanders able to survive in the dry western landscape. You might even see them seeking the cool, wet habitat of a window well at your house.

Young: Western tiger salamanders usually lay groups of 25 to 100 eggs attached to underwater plants, stones or logs. These eggs hatch after a few weeks. Salamanders, like most amphibians, go through something called metamorphosis. This means young salamanders hatch from eggs underwater with external gills which allow them to breathe underwater. These aquatic young salamanders, called

larvae, continue to live underwater while they grow for up to two years before changing their appearance and living mainly on the land as an adult. Other animals that do this include frogs and toads.

Predators: Western tiger salamanders can get eaten by badgers, snakes, bobcats and owls.

Food: Western tiger salamanders like to eat small insects and worms, and larger adults might even eat small frogs and mice.

Did you know? Thanks to students from Pathfinder High School in Lander, the blotched tiger salamander (which is a type of western tiger salamander that lives across Wyoming) was recently made the official Wyoming State Amphibian.

Preventing Invasive Species

As our Field Journal section taught us, an invasive species is a non-native plant or animal that harms the habitat where it was introduced. In Wyoming, we have a special program called the Aquatic Invasive Species program to stop invasive species from coming into our state's waters. Josh Leonard, an aquatic invasive species specialist, tells us more about the program:

Wyoming has a few aquatic invasive species already living in our state including brook stickleback, Asian clams, curly pondweed and New Zealand mudsnails. Thankfully, Wyoming does not yet have zebra or quagga

mussels like many other states. These mussels, which look like tiny clams, can do lots of damage to an entire aquatic ecosystem. Since zebra and quagga mussels can live on boats and are often moved into new lakes or reservoirs by boats, the Game and Fish aquatic invasive species program requires all boats entering the state from March 1 – November 30 to be inspected each year. These inspections help the department stop any invasive mussels being brought into, or through, Wyoming. If adult mussels are found on a boat, or tiny young mussels are suspected to be aboard,

then a Game and Fish employee will spray the boat with a pressure washer that has very hot water in it (up to 140 degrees Fahrenheit) to kill any of the invasive mussels that might be on the boat. The aquatic invasive species program at Game and Fish helps protect Wyoming waters from zebra and quagga mussels and reminds everyone to clean, drain and dry their boats and fishing equipment!



AIS decontamination unit - the pressure washer with very hot water to clean invasive species off boats.



Regional AIS Specialist Josh Leonard holding a brown trout.



Waverunner Inspection

Aquatic Habitat Exploration

Healthy aquatic habitats have lots of life in them, including many aquatic insects that help to break down dead leaves and provide food for other animals like fish. Head out to a local pond with a few household “research” supplies to see some of the cool creatures living there:

- Use a butterfly or other small net to dig down into the mucky bottom area of the stream or pond and scoop some into your net. Fill a bucket or clear container with water from the stream or pond and dump the muck from the net into it.
- Wait a minute for the mud to settle and watch what happens. You should see lots of young insects wiggling and swimming around! These include dragonfly, stonefly, and mayfly nymphs; crane fly and mosquito larvae and water beetles.
- Use an eye dropper or turkey baster to catch the insects and transfer them to their own space in an ice cube tray (also filled with water) so that you can look more closely with a magnifying glass.
- What do you notice about the insects? What is similar and different between the insects? How many legs do they have? Are there any tails?
- When you’re done, make sure to release the creatures gently back into the water.



Mayfly nymph



Water beetle



Dragonfly nymph

TEST YOUR KNOWLEDGE

Are these plants and animals native to Wyoming? Circle your answer, then check to see how well you did!

1. Rainbow Trout



NATIVE / NON-NATIVE

2. Western Tiger Salamander



NATIVE / NON-NATIVE

3. Brook Trout



NATIVE / NON-NATIVE

4. Salt Cedar



NATIVE / NON-NATIVE

5. Cutthroat Trout



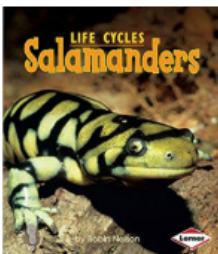
NATIVE / NON-NATIVE

Answers:

Answers: 1- non-native ; 2- native ; 3- non-native ; 4- non-native ; 5- native

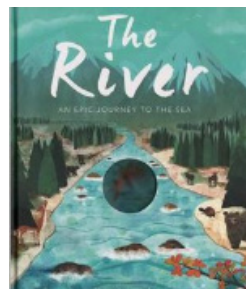
LEARNING LINKS

Books to check out



Life Cycles: Salamanders by Robin Nelson

This book walks readers through the unique life cycle of a salamander and is chock-full of fun facts about salamanders and newts.



The River by Hanako Clulow

Follow a little fish on her epic journey downriver as she travels into the unknown. As the river winds through mountains, forests and plains, the little fish swims on.



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